



SEQUENCE LISTING

<10> THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
PEDERSEN, Peter
MATHUPALA, Saroj

<120> ARREST OF PROLIFERATION OF HIGHLY GLYCOLYTIC TUMORS

<130> JHU1720-1

<140> US 09/808,743

<141> 2001-03-14

<150> US 60/189,222

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<212> DNA
<213> Artificial sequence

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<220>
<223> Forward primer

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<400> 4
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28

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<210> 5
<211> 29

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<212> DNA
 <213> Artificial sequence

 <220>
 <223> Revers primer

 <400> 5
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<210> 6
 <211> 22
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Forward primer

 <400> 6
 cggatccgcc cctctccctc cc 22

<210> 7
 <211> 24
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Revers primer

 <400> 7
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<210> 8
 <211> 25
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Forward primer

 <400> 8
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<210> 9
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 <213> Artificial sequence

 <220>
 <223> Revers primer

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<210> 10
 <211> 917
 <212> PRT

<213> Rattus norvegicus

<400> 10

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Met Ile Ala Ser His Met Ile Ala Cys Leu Phe Thr Glu Leu Asn Gln
1           5           10           15

Asn Gln Val Gln Lys Val Asp Gln Phe Leu Tyr His Met Arg Leu Ser
          20           25           30

Asp Glu Thr Leu Leu Glu Ile Ser Arg Arg Phe Arg Lys Glu Met Glu
          35           40           45

Lys Gly Leu Gly Ala Thr Thr His Pro Thr Ala Ala Val Lys Met Leu
          50           55           60

Pro Thr Phe Val Arg Ser Thr Pro Asp Gly Thr Glu His Gly Glu Phe
65           70           75           80

Leu Ala Leu Asp Leu Gly Gly Thr Asn Phe Arg Val Leu Arg Val Arg
          85           90           95

Val Thr Asp Asn Gly Leu Gln Arg Val Glu Met Glu Asn Gln Ile Tyr
          100          105          110

Ala Ile Leu Glu Asp Ile Met Arg Gly Ser Gly Thr Gln Leu Phe Asp
          115          120          125

His Ile Ala Glu Cys Leu Ala Asn Phe Met Asp Lys Leu Gln Ile Lys
          130          135          140

Glu Lys Lys Leu Pro Leu Gly Phe Thr Phe Ser Phe Pro Cys His Gln
145          150          155          160

Thr Lys Leu Asp Glu Ser Phe Leu Val Ser Trp Thr Lys Gly Phe Lys
          165          170          175

Ser Ser Gly Val Glu Gly Arg Asp Val Val Asp Leu Ile Arg Lys Val
          180          185          190

Ile Gln Arg Arg Gly Asp Phe Asp Ile Asp Ile Val Ala Val Val Asn
          195          200          205

Asp Thr Val Gly Thr Met Met Thr Cys Gly Tyr Asp Asp Gln Asn Cys
210          215          220

Glu Ile Gly Leu Ile Val Gly Thr Gly Ser Asn Ala Cys Tyr Met Glu
225          230          235          240

Glu Met Arg His Ile Asp Met Val Glu Gly Asp Glu Gly Arg Met Cys
          245          250          255

Ile Asn Met Glu Trp Gly Ala Phe Gly Asp Asp Gly Thr Leu Asn Asp
          260          265          270

Ile Arg Thr Glu Phe Asp Arg Glu Ile Asp Met Gly Ser Leu Asn Pro
          275          280          285

Gly Lys Gln Leu Phe Glu Lys Met Ile Ser Gly Met Tyr Met Gly Glu
290          295          300

```

Leu Val Arg Leu Ile Leu Val Lys Met Ala Lys Ala Glu Leu Leu Phe
 305 310 315 320
 Gln Gly Lys Leu Ser Pro Glu Leu Leu Thr Thr Gly Ser Phe Glu Thr
 325 330 335
 Lys Asp Val Ser Asp Ile Glu Glu Asp Lys Asp Gly Ile Glu Lys Ala
 340 345 350
 Tyr Gln Ile Leu Met Arg Leu Gly Leu Asn Pro Leu Gln Glu Asp Cys
 355 360 365
 Val Ala Thr His Arg Ile Cys Gln Ile Val Ser Thr Arg Ser Ala Ser
 370 375 380
 Leu Cys Ala Ala Thr Leu Ala Ala Val Leu Trp Arg Ile Lys Glu Asn
 385 390 395 400
 Lys Gly Glu Glu Arg Leu Arg Ser Thr Ile Gly Val Asp Gly Ser Val
 405 410 415
 Tyr Lys Lys His Pro His Phe Ala Lys Arg Leu His Lys Ala Val Arg
 420 425 430
 Arg Leu Val Pro Asp Cys Asp Val Arg Phe Leu Arg Ser Glu Asp Gly
 435 440 445
 Ser Gly Lys Gly Ala Ala Met Val Thr Ala Val Ala Tyr Arg Leu Ala
 450 455 460
 Asp Gln His Arg Ala Arg Gln Lys Thr Leu Glu Ser Leu Lys Leu Ser
 465 470 475 480
 His Glu Gln Leu Leu Glu Val Lys Arg Arg Met Lys Val Glu Met Glu
 485 490 495
 Gln Gly Leu Ser Lys Glu Thr His Ala Val Ala Pro Val Lys Met Leu
 500 505 510
 Pro Thr Tyr Val Cys Ala Thr Pro Asp Gly Thr Glu Lys Gly Asp Phe
 515 520 525
 Leu Ala Leu Asp Leu Gly Gly Thr Asn Phe Arg Val Leu Leu Val Arg
 530 535 540
 Val Arg Asn Gly Lys Arg Arg Gly Val Glu Met His Asn Lys Ile Tyr
 545 550 555 560
 Ser Ile Pro Gln Glu Val Met His Gly Thr Gly Glu Glu Leu Phe Asp
 565 570 575
 His Ile Val Gln Cys Ile Ala Asp Phe Leu Glu Tyr Met Gly Met Lys
 580 585 590
 Gly Val Ser Leu Pro Leu Gly Phe Thr Phe Ser Phe Pro Cys Gln Gln
 595 600 605
 Asn Ser Leu Asp Gln Ser Ile Leu Leu Lys Trp Thr Lys Gly Phe Lys
 610 615 620
 Ala Ser Gly Cys Glu Gly Glu Asp Val Val Thr Leu Leu Lys Glu Ala

625		630		635		640
Ile His Arg Arg Glu Glu Phe Asp Leu Asp Val Val Ala Val Val Asn						
		645		650		655
Asp Thr Val Gly Thr Met Met Thr Cys Gly Tyr Glu Asp Pro His Cys						
		660		665		670
Glu Val Gly Leu Ile Val Gly Thr Gly Ser Asn Ala Cys Tyr Met Glu						
		675		680		685
Glu Met Arg Asn Val Glu Leu Val Asp Gly Glu Glu Gly Arg Met Cys						
		690		695		700
Val Asn Met Glu Trp Gly Ala Phe Gly Asp Asn Gly Cys Leu Asp Asp						
705		710		715		720
Leu Arg Thr Val Phe Asp Val Ala Val Asp Glu Leu Ser Leu Asn Pro						
		725		730		735
Gly Lys Gln Arg Phe Glu Lys Met Ile Ser Gly Met Tyr Leu Gly Glu						
		740		745		750
Ile Val Arg Asn Ile Leu Ile Asp Phe Thr Lys Arg Gly Leu Leu Phe						
		755		760		765
Arg Gly Arg Ile Ser Glu Arg Leu Lys Thr Arg Gly Ile Ser Glu Thr						
		770		775		780
Lys Phe Leu Ser Gln Ile Glu Ser Asp Cys Leu Ala Leu Leu Gln Val						
785		790		795		800
Arg Ala Ile Leu Arg His Leu Gly Leu Glu Ser Thr Cys Asp Asp Ser						
		805		810		815
Ile Ile Val Lys Glu Val Cys Thr Val Val Ala Arg Arg Ala Ala Gln						
		820		825		830
Leu Cys Gly Ala Gly Met Ala Ala Val Val Asp Lys Ile Arg Glu Asn						
		835		840		845
Arg Gly Leu Asp Asn Pro Lys Val Thr Val Gly Val Asp Gly Thr Leu						
		850		855		860
Tyr Lys Leu His Pro His Phe Ala Lys Val Met His Glu Thr Val Arg						
865		870		875		880
Asp Leu Ala Pro Lys Cys Asp Val Ser Phe Leu Glu Ser Glu Asp Gly						
		885		890		895
Ser Gly Lys Gly Ala Ala Leu Ile Thr Ala Val Ala Cys Arg Ile Arg						
		900		905		910
Glu Ala Gly Gln Arg						
		915				